

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

A. BUERKE ET AL.

Serial No.: 10/724,136

Filed: December 1, 2003

For: LOW RESISTANCE BARRIER FOR

A MICROELECTRONIC

COMPONENT AND METHOD FOR

FABRICATING THE SAME

Art Unit: 2811

Examiner:

Not Yet Assigned

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Applicants wish to make of record in the above-identified application the document or documents referenced on the attached Form PTO-1449. A copy of each non U.S. reference is enclosed herewith.

The cited references are mentioned in a German Office Action dated September 2, 2003 received in applicant's corresponding German application and on pages 5 and 6 of the above-identified application and are believed relevant for at least that reason.

The undersigned believes that this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Accordingly, Applicants do not believe that a fee is due for filing this paper. However, should a first action on the merits have been issued on the same day or before this Information Disclosure

Serial No.: 10/724,136 Attorney's Docket No.: INF-118

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Statement is filed, please accept this Information Disclosure Statement under Rule 97(c) and charge the requisite Rule 17(p) fee to our Deposit Account No. 50-1390, under Order No. INF-118 and proceed to consider this Information Disclosure Statement.

It is respectfully requested that the information be expressly considered during the prosecution of this application, and that each reference be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This submission does not represent that any referenced document is material or constitutes "prior art." If it should be determined that one or more of the referenced documents constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of the reference or references.

Applicants further reserve the right to take appropriate action to establish the patentablity of the disclosed invention over any referenced document, should it be applied against the claims of the present application.

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Date: May 10, 2004

Respectfully submitted,

A. BUERKE ET AL.

By:

Michael A. Oblon

Registration No. 42,956

Customer No. 28970

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Complete if Known ubstitute for form 1449A/PTO 10/724,136 **Application Number** INFORMATION DISCLOSURE Filing Date 12/1/03 STATEMENT BY APPLICANT **First Named Inventor** A. Buerke et al. Art Unit 2811 (use as many sheets as necessary) **Examiner Name** Unknown Attorney Docket Number INF-118 Sheet

U.S. PATENT DOCUMENTS						
Examiner	Cite No.1	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or	
Initials		Number- Kind Code <sup>2</sup> (if known)	MM-DD-YYYY Applicant of Cited Document		Relevant Figures Appear	
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		FOREIGN F	PATENT DOCU	MENTS		
Examiner Initials	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	MM-DD-YYYY	Applicant of Cited Document		
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<sup>\*</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in

Applicant's unique ditation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO				Complete if Known		
INIE	FORMATION DIS	201	OCUBE	Application Number	10/724,136	
				Filing Date	12/1/03	
STATEMENT BY APPLICANT				First Named Inventor	A. Buerke et al.	
				Group Art Unit	2811	
	(use as many sheets as	nece	ssary)	Examiner Name	Unknown	
Sheet	2	of	2	Attorney Docket Number	INF-118	

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Cite Initials No.						
		M. Takeyama et al. "Preparation of Wn Films and Their Diffusion Barrier Properties in CU/Si Contact System" Jpn. J. Appl. Phys. Vol. 36 (1997) pp. 2261-2266.				
		Y. Kim et al. "New Method to Improve the Adhesion Strength of Tungsten Thin Film on Silicon W2N Glue Layer" App. Phys. Lett. 61 (5) 1992 pp. 537-539				
		B. Lee et al. "In situ Barrier Formation Using Rapid Thermal Annealing of a Tungsten Nitride/Polycrystalline Silicon Structure" Applied Physics Letters, Vol. 76 (18) 2000 pp. 2538-2540				
		B. Suh, et al. "Crystallization of Amorphous Wn Films" J. Appl. Phys. Vol. 89 (2000), pp 4128-4133.				
Examiner Signature		Date Considered				

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Examiner Signature		Date Considered	

<sup>\*</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

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